

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,447	02/26/2002	Kazunori Kishimoto	NEKO 19.481	6047
26304	7590	08/17/2004	EXAMINER	
KATTEN MUCHIN ZAVIS ROSENMAN 575 MADISON AVENUE NEW YORK, NY 10022-2585			TRIMMINGS, JOHN P	
		ART UNIT		PAPER NUMBER
		2133		

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/083,447	KISHIMOTO, KAZUNORI	
	Examiner	Art Unit	
	John P Trimmings	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 February 2002.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) 4,7,8,9,11,14,15,16 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 February 2002 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 7/15/12
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Claims 1-18 are presented for examination.

Priority

The examiner acknowledges the applicant's claim for priority based on a foreign application date of 3/1/2001.

Information Disclosure Statement

The examiner has considered the Information Disclosure Statement dated 2/26/2002.

Drawings

1. Figures 6, 7, 8, 9a, 9b, 9c, and 10 should be designated by a legend such as -- Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because it contains 196 words. Correction is required. See MPEP § 608.01(b).
3. The disclosure is objected to because of the following informalities: page 4 paragraph [0007] recites, "101 to 103 and the flip-flops 104 to 106", but the examiner believes it should read, "10₁ to 10₃ and the flip-flops 10₄ to 10₆". Appropriate correction is required.

Claim Objections

4. Claims 4, 7, 8, 9, 11, 14, 15 and 16 objected to because of the following informalities: the claims contain the citation, "termed an aggressor path" in parenthesis. Patentable weight is not afforded to a recitation that is within parenthesis in a claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 6 recites the limitation "said path" in lines 4, 7 and 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 6-11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art, where references are taken from the Disclosure (Background of Invention), and drawings FIG.5 through FIG. 10, and in view of IEEE publication "Test Generation for Crosstalk-Induced Delay in Integrated Circuits" by Chen et al., hereinafter referred to as Chen et al.

As per Claims 1, 14 and 15:

All limitations of the claims are taught by the prior art reference cited by the applicant, however the reference does not teach applying a signal to a path that influences crosstalk to the measurement path. In an analogous reference, Chen et al. does teach this feature in column 1 of page 191. And in column 2 of page 191, the advantage to the method is cited as a cost-effective alternative to a complete re-design of a chip with timing fault characteristics in a manufacturing environment which may be under production time constraints. And one with ordinary skill in the art at the time of the invention, motivated as suggested, would find it obvious to apply the cost cutting teachings of Chen et al. to the prior art method and program product based on the same.

As per Claims 2-4, 6, 11 and 13:

All limitations of the claims are taught by the prior art reference cited by the applicant, however the reference does not teach comparing a static delay with a

dynamic delay. The analogous art of Chen et al. does teach this feature in sections 3.1.1 and 3.1.2 of page 194. And in view of the previously mentioned motivation, the claim is rejected.

As per Claims 7-10:

All limitations of the claims are taught by the prior art reference cited by the applicant, however the reference does not teach comparing a static delay with a dynamic delay. The analogous art of Chen et al. does teach this feature in sections 3.1.1 and 3.1.2 of page 194. And also further taught by Chen et al. is a method for generating the patterns necessary for testing the crosstalk properties of a circuit (see sections 3.2.2 and 3.5). And in view of the previously mentioned motivation, the claims are rejected.

7. Claims 5, 12, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art, where references are taken from the Disclosure (Background of Invention), and drawings FIG.5 through FIG. 10, in view of IEEE publication "Test Generation for Crosstalk-Induced Delay in Integrated Circuits" by Chen et al., hereinafter referred to as Chen et al., and further in view of Merrill, U.S. Patent No. 5235566. All limitations of the claims are taught by the prior art reference cited by the applicant, however the reference does not teach applying a signal to a path that influences crosstalk to the measurement path by affecting a clock. In an analogous reference, Chen et al. does teach the feature of applying a signal to a path that influences crosstalk in column 1 of page 191, but does not name the path as a clock signal. In another analogous art, Merrill does teach this feature in the Abstract and

paragraph 47. And in column 4 lines 25-38, the advantage is a method and program product based on said method to measure clock skew between two latches. One with ordinary skill in the art at the time of the invention, motivated as suggested, would have found it obvious to combine the teachings of Merrill in order to measure the effects of the clock on the circuit of the prior art above. And in view of the motivation for Chen et al., previously mentioned, the claim is rejected.

Conclusion

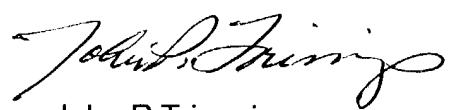
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P Trimmings whose telephone number is 703-305-0714. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

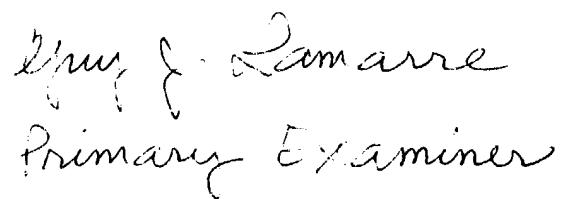
Application/Control Number: 10/083,447
Art Unit: 2133

Page 7



John P Trimmings
Examiner
Art Unit 2133

jpt



Guy J. Lamare
Primary Examiner